

Abstract:

Page 34, in the abstract section, replace with the following new abstract paragraph:

--- MULTIUSER DSSS-OFDM MULTIBAND FOR ULTRA
WIDEBAND COMMUNICATIONS

Abstract of the Disclosure

A multiuser direct sequence spread spectrum (DSSS) Orthogonal Frequency Division Multiplexing (OFDM) multiband of Ultra Wideband (UWB) communication system for ~~[[a]]~~ short-distance wireless broadband communications is disclosed for ~~[[the]]~~ indoor environment of UWB operations. Eleven ~~multi-frequency~~ bands are employed, with each of the ~~multi-frequency~~ bands having 650 MHz bandwidths. A 1024-point IFFT and FFT with 1,000 subcarriers are used to carry data and pilots ~~information~~ within each of the ~~multi-frequency~~ bands. The multiuser DSSS-OFDM multiband of ~~the~~ UWB ~~base station~~ communication ~~transmitter system~~ can transmit N different users at the same time by using a unique spreading sequence for each of the N different users. A QPSK modulation is ~~employed~~ used for a different data rate with scalability, ~~in the environments of multi-frequency bands~~. The maximum transmitting data rate of the ~~multiuser DSSS-OFDM multiband of the~~ UWB communication system ~~is up to~~ can achieve about 5.541 Gbps, ~~within the short distance in the indoor environment.~~